CLAIMS

1. Distribution network for electromagnetic signals, preferably for use in an antenna arrangement in the microwave range, comprising at least two waveguide branches, in which branches the electromagnetic signals propagate in different directions with respect to one another, characterized in that said at least two waveguide branches overlap one another at a point in the distribution network, said at least two waveguide branches each having at least one aperture in the part of the branch which overlaps the other branch.

2. Distribution network according to Claim 1, in which the waveguide branches in the distribution network which overlap one another are neighbouring branches.

3. Distribution network according to any of Claims 1 or 2, in which at least one aperture in the at least two waveguide branches is included in a group of apertures which are arranged in an essentially straight line.

4. Distribution network according to any of Claims 1-3, in which a number of the apertures in the group are intended for one and the same polarization.

5. Distribution network according to Claim 4, in which the apertures in the group are intended for horizontal polarization.

6. Distribution network according to Claim 5, in which the apertures in the group are situated at the end of their respective branch in the distribution network.

7. Distribution network according to Claim 4, in which the apertures in the group are intended for vertical polarization.

8. Distribution network according to Claim 7, in which the apertures in the group are situated at a distance of ¾ λ_g from the end point of their respective branch, where λ_g is the wavelength of the electromagnetic signal in the waveguide.

9. Distribution network according to Claim 8, in which the apertures are constituted of apertures in a longitudinal wall of the waveguide.

10. Distribution network according to any of the preceding claims, in which the apertures are constituted of slots.

11. Distribution network according to any of the preceding claims, in which the waveguides comprise tracks in a plate of conductive material.

12. Antenna arrangement comprising a distribution network according to any of Claims 1-11.

13. Antenna arrangement according to Claim 11, in which the distribution network is constructed in two layers with an intermediate aperture layer.

14. Antenna arrangement according to Claim 13, in which the waveguides in one of the distribution networks comprises tracks in a plate of conductive material.